Divya Nayak

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OBJECTIVE: To obtain a position in industry or consulting that will enable me to further use my environmental engineering skills, educational background and interpersonal skills.

CORE COMPETENCIES

- Remediation
- Water Quality Engineering
- Biological Wastewater Treatment
- Mathematical Modeling for environmental systems
- Environmental Life Cycle Assessment
- Sustainable Engineering

EDUCATION

- **M.S. in Civil and Environmental Engineering**, Carnegie Mellon University **December 2012**
  Concentration: Environmental Engineering and Sustainability Sciences
- **Bachelor of Engineering in Civil Engineering,** B.M. Sreenivasiah College Of Engineering **June 2011**

PROFESSIONAL EXPERIENCE

Intern, Bangalore Metro Rail Corporation Ltd., Bangalore **Feb 2011-April 2011**

- Various stages in the precast segmental construction from developing reinforcement frame to hoisting the completed segmental structures were studied
- Focused and conducted the quality control tests required at all stages

PROJECTS

Obama Versus Romney Campaign Trail, Carnegie Mellon University

Nov 2012- Dec 2012

- Analysis of the campaign trails for Obama and Romney (routes traveled, types of vehicles and their mileages).
- Comparing fuel costs and Green House Gas emissions throughout the campaign for two cases: (1) 100% air travel (2) combination of air and bus transportation, using MS Excel and EIO-LCA.
- Suggestions for further improvement in order to make the campaign trail more sustainable.

Comparative Life Cycle Assessment of Frozen Concentrated Orange Juice and Beer, Carnegie Mellon University **Feb 2012-April 2012**

- Cradle to gate analysis of production of frozen concentrated orange juice and beer.
- Quantitatively assessed environmental impacts such as Global warming potential, Cumulative energy demand, water withdrawals and toxic air emissions exerted by each beverage using SIMAPRO and EIO LCA.
- Identified factors contributing to high environmental impacts in each process flow and solutions were suggested

Case study of remediation of Air Force Plant 4, Fort Worth, Texas, Carnegie Mellon University

Feb 2012-April 2012

- Case study of AFP4 (Landfills 1 and 3) which included understanding the goals of remediation, site characterization, conceptual site model
- Proposed Electrical resistive heating and permeable reactive barrier along with installation of monitoring wells as the appropriate remedial technologies
- Post closure methodologies such as Monitored Natural attenuation and installation of post-monitoring wells (at same locations as initial monitoring wells)
- Resulted in reduction of mass flux of the contaminant of concern and mobilization to adjacent sites was prevented

SKILLS: Computer: Microsoft Office, AUTOCAD, SimaPro, Basics of C and MATLAB, MINEQL+, NISA

ACTIVITIES:

- Participated in educating residents of certain apartment blocks about segregating domestic waste into three categories
- Member of the organizing team which was involved in fund raising for departmental activities